WHAT IS CLAIMED IS:

1. A method for selecting one of multiple proposed paths to a device, comprising:

for each proposed path, determining a number of components the proposed path shares with existing paths to the device, wherein the components comprise points of failure such that if one component fails then the paths including the component fails; and

using the determined number of shared components for each proposed path to select one proposed path.

2. The method of claim 1, wherein using the determined number of shared components to select one proposed path comprises selecting the proposed path having a least number of shared components with existing paths, and wherein the selected proposed path is selected to provide an additional path to the device.

3. The method of claim 1, wherein using the determined number of shared components to select one proposed path comprises selecting the proposed path having a greatest number of shared components with existing paths, wherein each proposed path comprises one existing path to the device, and wherein the selected proposed path is selected to be removed as one of the paths to the device.

4. The method of claim 1, wherein each path includes an adaptor in a computer and an interface port in the device, wherein determining the number of components the proposed path has in common with existing paths further comprises determining a number of components the adaptor in the proposed path shares with the adaptors of existing paths to the device and determining a number of components the proposed path shares with the interface ports of existing paths to the device.

5. The method of claim 4, wherein each path further includes a source port and destination port on a switch, wherein the adaptor for a path connects to the source port of the switch and wherein the interface port for the path connects to the destination port of the switch, wherein determining the number of components the proposed path has in common with existing paths further comprises determining components on the switch the proposed path has in common with existing paths.

6. The method of claim 5, wherein determining components on the switch the proposed path has in common with existing paths further comprises:

determining whether the proposed path and each existing path use the same switch;

determining whether the source port of the proposed path is in a port card including the source or destination port of any of the existing paths; and

determining whether the destination port of the proposed path is in a port card including the source or destination port of any of the existing paths.

7. The method of claim 4, wherein the device comprises a control unit providing access to a storage space, and wherein each proposed path connects one adaptor in the computer with one interface port in the control unit.

8. The method of claim 1, further comprising:

maintaining an availability index for each proposed path;

incrementing the availability index for each component the proposed path and each existing path share, wherein the availability index is used to select the proposed path.

9. A system for selecting one of multiple proposed paths to a device, comprising:

means for determining, for each proposed path, a number of components the proposed path shares with existing paths to the device, wherein the components comprise points of failure such that if one component fails then the paths including the component fails; and

means for using the determined number of shared components for each proposed path to select one proposed path.

10. The system of claim 9, wherein the means for using the determined number of shared components to select one proposed path comprises means for selecting the proposed path having a least number of shared components with existing paths, and wherein the selected proposed path is selected to provide an additional path to the device.

11. The system of claim 9, wherein the means for using the determined number of shared components to select one proposed path comprises means for selecting the proposed path having a greatest number of shared components with existing paths, wherein each proposed path comprises one existing path to the device, and wherein the selected proposed path is selected to be removed as one of the paths to the device.

12. The system of claim 9, wherein each path includes an adaptor in a computer and an interface port in the device, wherein the means for determining the number of components the proposed path has in common with existing paths further comprises means for determining a number of components the adaptor in the proposed path shares with the adaptors of existing paths to the device and determining a number of components the proposed path shares with the interface ports of existing paths to the device.

13. The system of claim 9, wherein each path further includes a source port and destination port on a switch, wherein the host adaptor for a path connects to the source port of the switch and wherein the interface port for the path connects to the destination port of the switch, wherein the means for determining the number of components the proposed path has in common with existing paths further comprises means for determining components on the switch the proposed path has in common with existing paths.

14. The system of claim 13, wherein the means for determining components on the switch the proposed path has in common with existing paths further comprises:

means for determining whether the proposed path and each existing path use the same switch;

means for determining whether the source port of the proposed path is in a port card including the source or destination port of any of the existing paths; and

means for determining whether the destination port of the proposed path is in a port card including the source or destination port of any of the existing paths.

15. The system of claim 12, wherein the device comprises a control unit providing access to a storage space, and wherein each proposed path connects one adaptor in the computer with one interface port in the control unit.

16. The system of claim 9, further comprising:

means for maintaining an availability index for each proposed path;

means for incrementing the availability index for each component the proposed path and each existing path share, wherein the availability index is used to select the proposed path.

17. An article of manufacture for use in selecting one of multiple proposed paths to a device, the article of manufacture comprising code embedded in a computer readable medium capable of causing a processor to perform:

for each proposed path, determining a number of components the proposed path shares with existing paths to the device, wherein the components comprise points of failure such that if one component fails then the paths including the component fails; and

using the determined number of shared components for each proposed path to select one proposed path.

18. The article of manufacture of claim 17, wherein using the determined number of shared components to select one proposed path comprises selecting the proposed path having a least number of shared components with existing paths, and wherein the selected proposed path is selected to provide an additional path to the device.

19. The article of manufacture of claim 17, wherein using the determined number of shared components to select one proposed path comprises selecting the proposed path having a greatest number of shared components with existing paths, wherein each proposed path comprises one existing path to the device, and wherein the selected proposed path is selected to be removed as one of the paths to the device.

20. The article of manufacture of claim 17, wherein each path includes an adaptor in a computer and an interface port in the device, wherein determining the number of components the proposed path has in common with existing paths further comprises determining a number of components the adaptor in the proposed path shares with the adaptors of existing paths to the device and determining a number of components the proposed path shares with the interface cards of existing paths to the device.

21. The article of manufacture of claim 20, wherein each path further includes a source port and destination port on a switch, wherein the adaptor for a path connects to the source port of the switch and wherein the interface port for the path connects to the destination port of the switch, wherein determining the number of components the proposed path has in common with existing paths further comprises determining components on the switch the proposed path has in common with existing paths.

22. The article of manufacture of claim 21, wherein determining components on the switch the proposed path has in common with existing paths further comprises causing the processor to perform:

determining whether the proposed path and each existing path use the same switch;

determining whether the source port of the proposed path is in a port card including the source or destination port of any of the existing paths; and

determining whether the destination port of the proposed path is in a port card including the source or destination port of any of the existing paths.

23. The article of manufacture of claim 20, wherein the device comprises a control unit providing access to a storage space, and wherein each proposed path connects one adaptor in the computer with one interface port in the control unit.

24. The article of manufacture of claim 19, wherein the code is further capable of causing the processor to perform:

maintaining an availability index for each proposed path;

incrementing the availability index for each component the proposed path and each existing path share, wherein the availability index is used to select the proposed path.